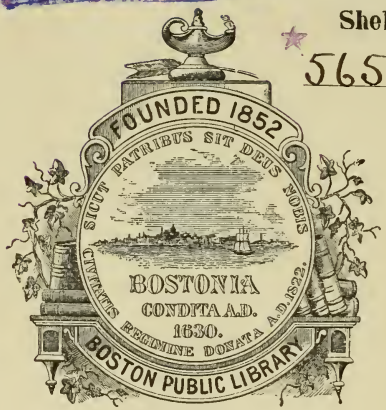

Boston. Transit Commission.
Statement of the Subway Commission.
[Boston, 1894?]
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STATEMENT

OF THE

SUBWAY COMMISSION.

Hon. Charles Francis Adams,

Dec. 7, 1896.

STATEMENT OF THE SUBWAY COMMISSION.

SUBWAY ACT OF 1893 INADEQUATE.

The subway act of 1893, chapter 478, provides for the construction of a subway in Tremont street, from a point at or near Pleasant street to Scollay square (at or near which it is to connect with the surface tracks), a distance of about four thousand feet, at an expense not exceeding two million dollars. The Scollay Square end would come to the surface in a locality where it would greatly aggravate the existing congestion instead of relieving it; while the intricate network of surface rails in the already overcrowded, narrow, and crooked streets between Scollay square and the Northern station, would remain in its present bad condition. Furthermore, no provision is made in this act for the cars coming into Tremont street, via Boylston, from Columbus and Huntington avenues, the Reservoir, Brighton, Longwood, Cambridge, and the Back Bay, all of which would have to continue as at present on the surface of Tremont street or be stopped and turned back before reaching it. As the primary reason for building a subway is to remove all cars from the surface of streets so treated, and restore the streets to ordinary city traffic, it is apparent that a subway, as authorized by this act, would be a failure and the money expended upon

it largely wasted. The lack of sufficient time to study the problem properly when the bill was drawn accounts for the imperfections of the act.

BOYLSTON-STREET CARS.

By a further, though not final, examination of the premises, it appears that all the cars passing through Boylston street from and to Columbus and Huntington avenues, the Back Bay, Cambridge, Longwood, Brighton, and the Reservoir, can be gathered into a branch subway by one or more entrances on Columbus avenue, Boylston street, or in the vicinity of the Providence station, to enter Tremont-street subway at the corner of Boylston and Tremont streets, and move on independent tracks through the city. The length of this branch subway (including approaches) would be about two thousand five hundred feet. At present the point of junction of Boylston and Charles streets and Park square is one of the most dangerous and perplexing localities in the city, both for the thousands of foot passengers going to and from the Providence station daily and for the residents of the neighborhood. Any plan for the restoration of Tremont street and for promoting accelerated car transit which did not provide for the lines last mentioned would not be entitled to serious consideration.

NORTHERN TERMINUS.

The most practicable and useful terminus at the north for the Tremont-street subway is at or near the new Northern Union station. To reach this point

the subway would be continued from Scollay square to New Washington street, through Haymarket square and the old Boston & Maine station location, to Causeway street, a distance of about two thousand five hundred feet. At this station some five hundred trains daily arrive and depart with passengers from and to Northern and Eastern New England, Canada, and the Provinces. All the streets and sidewalks leading from this station to the business part of the city are inadequate for the flood of passengers and traffic compelled to use them. The city cannot long delay the opening of one or more thoroughfares from Causeway street to the south.

The plan proposed for extending the subway will go far to obviate existing evils, in respect to both passengers and vehicles. This plan is to take, by purchase or otherwise, the abandoned Haymarket-square station; to widen Canal and Haverhill streets, with sidewalks from fifteen to twenty feet in width; to extend Market street to Haverhill street; and to bring the subway to the surface at Travers street, with eight tracks between Travers and Causeway streets, — four terminal tracks to accommodate traffic to and from the Northern station, two other tracks for Charlestown, and two for Somerville and East Cambridge.

TERMINAL STATION.

The terminal station will have covered platforms from two to three hundred feet long, with about two thousand feet of side-tracks for storing cars during the less busy hours of the day, thus relieving the

subway and streets of cars returning empty, but with a supply at hand for service during the busy hours, and effecting a large saving to the railway company.

If this plan for a large terminal station meets the approval of the Legislature, and is carried out, it will mark a distinct advance in the methods of handling urban passenger traffic, and will add greatly to the comfort, safety, and economy of time of passengers. The provision for outside tracks lends itself appropriately to connections with a system of elevated tracks for Charlestown, and for Somerville and East Cambridge, and the towns beyond, whenever such a system shall be built, and will be found to be an essential feature for such roads when the time comes. The widening and extending of streets and sidewalks from Haymarket square to Causeway street is not strictly a part of the subway, nor should the expense thereof properly be charged to it, but as one of the results of the plan proposed it is of great value.

OTHER STATIONS.

Besides the terminal at Causeway street, other stations will be placed on Adams and Scollay squares, or near by ; at or near the corners of Tremont and Park streets, Tremont and Boylston streets, Tremont street and Shawmut avenue, at Park square, at Berkley street, and at such other points as further study may indicate as desirable. Citizens who have recently given their time and labor for the defence of the Common, and, indeed, through whose efforts to

save it from serious invasion, the subway plan originated, favor the necessary location of stations on the Common at Park and Boylston corners, recognizing the fact that the rising tide of population to the south and west of the city must have an outlet, and that sooner or later this tide, if not carried around or under the Common, will flow over it.

All these stations will have liberal stairways and platforms, and will be so located as to separate passengers going in opposite directions, as is done in the New York elevated system. The descent to these platforms will be about sixteen feet, or two-thirds the height of many of the New York elevated stations. The stations will be finished in white-glazed porcelain tile or brick, lighted by electricity, and will be of sufficient dimensions to accommodate for many years the constantly increasing traffic. If properly policed, they can be kept as clean as the hallways of the best built modern business structures.

CONSTRUCTION OF THE SUBWAY.

The subway will contain four tracks from its northern terminus to the corner of Tremont and Boylston streets. From this point the two easterly tracks will continue along Tremont street to Pleasant, while the two westerly tracks will continue along Boylston street, as already described.

In constructing the subway, it is believed that interruption of traffic, other than that of street cars, by the disturbance of the street, will not be serious. The new street surface, supported on steel

columns and beams and brick arches, may be completed before the mass of earth below is excavated. Travel of all kinds, — barring cars, — may continue upon both sidewalks and streets, and it is believed that no point will be greatly incommoded, except for a limited time. The four-track subway is designed to be in general forty-six feet wide by fifteen high. It may be lined throughout with white-glazed porcelain tile or brick, and lighted by electricity at all hours. Examples of this sort of construction may be seen in the deposit vaults of the Exchange Building, on State street; in the basement of the Sears Building; of the Waldorf Hotel, New York; in the sub-basement, Café Savarin, of the Equitable Building, New York, which extends under Broadway; and in various other structures.

The construction of the track and road-bed in the subway will be similar to that of the best steam railroads, insuring a smoothness which is impossible on a street track, where the ties and joints are inaccessible. Since ample entrances, exits, and platforms will be provided, the present helter-skelter, dangerous and inconvenient manner of entering and leaving cars will be done away with. The atmosphere in the subway will be warmer in winter and cooler in summer than on the surface, and without the sudden extreme changes so common in this climate.

Artificial ventilation will be used if needed.

Precautions will be taken in construction to secure dryness, by the use, if found necessary, of hollow walls, outside and inside drainage, catch-basins, and water-tight inverts. Such a subway will be in no

sense a tunnel, but may be more correctly described as a basement street. Gas and sewer pipes will be excluded.

TREMONT STREET NOW A CONTINUOUS GRADE CROSSING.

Two kinds of traffic are now contending for the use of the streets, — the ordinary city traffic and the electric-car system, greatly to the disadvantage of both. The former cannot be put in the subway, the latter can be. Some streets, such as Tremont street, present today many of the conditions of a continuous grade-crossing of steam railroads, for the abolition of which the railroads and the state are paying large sums.

HIGH BUILDINGS INCREASE CONGESTION.

As the process goes on of replacing three and four-story buildings with others, having six, eight, ten, and twelve floors (of which there are already sundry examples), the number of people doing business within a given area is doubled and quadrupled, while the area of the adjacent streets and sidewalks remains the same. Elevated roads are a financial impossibility in the congested district, and relief can come only by cutting new streets or doubling the present ones by constructing subways. The destruction of property by the first method would be too great, while by the latter the cost would be entirely in constructing new property.

CLEARING STREETS OF USELESS TRACKS.

If the subway is built, substantially as described, there will be sundry tracks beside those of the "subwayed" streets, which will no longer be necessary and should be removed and the streets restored to their original state, thus increasing their usefulness for ordinary traffic. This result would obtain, for example, in portions of Court, Cornhill, Sudbury, Portland, Canal, Haverhill, and Boylston streets, Temple place, Park square, etc., etc.

TROLLEY AND OTHER WIRES.

The removal of trolley and other wires from several miles of streets in the heart of the city, as a consequence of the subway, will commend itself to property owners, the fire department, insurance companies, as well as to the æsthetic taste of the community.

BOYLSTON STREET MALL.

Although the proposed amendments to the act of 1893 do not ask for the use of Boylston street mall for the subway (such use not being essential to the plan), it is nevertheless well to call attention to the probable necessity for widening Boylston street at this point in the near future. The pressure for this widening will increase with the annual increase of the traffic which now crowds the street, until the honorable sentiment which protects the Common from such invasion gives way to the inevitable requirements of business. This widening will post-

pone indefinitely all schemes for opening streets across the Common. If it should be decided to make this widening now, the subway would be placed under the mall, and the street surface would be a part of the construction. Meanwhile, the rails would remain as at present, connecting with the Washington street tracks, till the subway is finished; and there would be no interference with the street traffic, an extremely important consideration. This would give space for fifteen or twenty-foot sidewalks on Boylston street, where they are grievously needed.

ELEVATED ROAD CONNECTIONS.

As to the possible future uses of the subway, it could be connected with an elevated railroad beyond its terminals, as well as with the present surface system. The height and size of the subway, and the arrangements of the stations and the platforms, will be as well adapted for trains as for single cars. In the opinion of the engineers who have been consulted, the entrances and exits to the subway may be so arranged as to admit of being connected with an elevated road so that trains of cars might be run from the suburbs to and through the subway without change.

RENTAL OF SUBWAY.

It is understood that the loss to the West End Railway Company due to its overcrowded tracks, frequent blockades, and interference by other traffic, amounts to a large sum annually, and is constantly increasing, and that this condition is a bar to meet-

ing the pressure for more suburban service. Slowly and intermittently moving or stationary cars not only cause a serious waste of time to passengers, but also involve a loss in wages and a waste of motive power. The Tremont-street subway, with its four tracks and its comfortable stations, will, it is confidently believed, put an end to this waste and loss as respects that route, and enable the company using it to perform its functions to the satisfaction of the public. Under a long lease any company using the subway will enjoy security of tenure now lacking. So valuable a privilege should command a rental which, with other income, will pay a fair interest upon the investment, and save the city from loss. The proposed amendments to the act provide that the amount of this rental shall be finally passed upon by the State Board of Railroad Commissioners.

INCOME FROM STATION PROPERTIES.

To meet the expenses of acquiring locations for sundry stations along the route, for the northern terminus, and for widening and extending streets, special authority is provided in the proposed amendments. As the subway would use but a portion of the surface of the properties so acquired, and no space above the first story, the city, either by sale or lease, would receive either in purchase money or rentals a proportionate return for its investment in these properties. All such locations would be valuable for business purposes.

IMPROVEMENT OF THE COMMON.

While Tremont street is being excavated, advantage should be taken of the large amount of material, immediately at hand, to raise the grade of the parade ground on the Common. This would be done without any expense for the filling, and with economy in the construction of the subway. It is suggested that a topographical plan be prepared by Mr. Frederick Law Olmsted, landscape architect, for the beautifying of this flat, low land, that it may correspond in dignity with the rest of the Common. So rare an opportunity for making this important improvement at a trifling cost should not be lost.

SUMMARY OF RESULTS FROM SUBWAY.

The surface of the "subwayed" streets and parts of adjacent streets will be cleared of tracks and restored to the use of ordinary traffic. The increased value of these thoroughfares to the business of the city at large is incalculable, but must be enormous. Safety and comfort to citizens will take the place of danger, discomfort and anxiety. The offence of putting sand and salt on the streets will cease.

Passengers by the subway will enjoy the luxury of a protected station and platform when awaiting or leaving their cars, instead of being exposed on a sidewalk or in the middle of a street; and will have comparatively rapid transit, as the present rate of movement can be more than doubled, and vexatious delays by blockades, now so frequent, avoided.

The railroad company will have north of Boylston street four tracks instead of two, and a perfect road-bed and track; exemption from delays by street traffic blockades, exemption from expense of removing snow and ice, and from the waste in wages paid, and loss of motive power when cars are idle; and will measurably avoid liability for damages by accidents. There will also be a saving by abolishing tracks made useless by the subway. The crossing of tracks at the corner of Tremont and Boylston streets, and at the Tremont House, which is a cause of frequent blockades, will be done away with.

The amendments proposed to the act of 1893 contemplate the construction of subways, partly for two and partly for four tracks, about ten thousand feet in length, at an estimated cost of $3,500,000, and the purchase of the necessary real estate for terminals and stations at an estimated cost of $1,500,000, making a total of $5,000,000.

CHARLES H. DALTON,
THOMAS J. GARGAN,
GEORGE F. SWAIN,
Subway Commissioners.

BOSTON, February 12, 1894.

AN ACT

To Amend Chapter 478 of the Acts of 1893, Relative to the Construction of Subways in the City of Boston.

Section 1. So much of said act as follows section 1 thereof is hereby amended so that the same shall read as follows:

Sect. 2. The said board is hereby authorized to lay out and construct in said Boston a subway of sufficient breadth for two or more street railway tracks, with approaches, sidings, and stations. Said subway may be constructed in and under Tremont street from a point or points near the junction of Tremont street and Shawmut avenue to and through Scollay square and in and under lands adjoining and adjacent to said streets (other than Boston Common, except so much thereof at or near the corners of Tremont and Park streets and Tremont and Boylston streets as may be necessary for stations, with the tracks, stairways, and approaches incidental thereto, and for retaining-walls, but without permanent disturbance of the surface except for stairways leading to said stations), and from Scollay square through and under Cornhill, Brattle, Hanover, and Washington streets, or other streets and lands, to a point or points near Causeway street; and through and under

Boylston street from Tremont street, to and through Park square, and further through Boylston street, Providence street, and Columbus avenue, or lands adjoining and adjacent, to a point or points where suitable connections with surface tracks may be made; and said board may take or purchase in behalf of said city lands and easements and other estates in land, for the purposes of this section. A taking or purchase under this section of an easement or other estate in a given parcel of real estate (whether such parcel consists of unimproved land, or of land and buildings), may be confined to a portion or section of such parcel fixed by horizontal planes of division, either below or above, or including the natural surface of the soil, and in such case no taking or purchase need be made of upper or lower portions or sections except of such easements therein as may be necessary. Such taking or purchase may be made notwithstanding any of such lands be now held under or by title derived under right of eminent domain.

Sect. 3. Said board shall, within thirty days after a taking under this act, file in the Registry of Deeds for the County of Suffolk, a description of the lands and estates taken, as certain as is required in a common conveyance of land, with a statement of the purpose of the taking. Said city shall pay all damages sustained by such taking. The same shall be ascertained as damages are ascertained upon the laying out, altering, or discontinuing of ways in Boston. Said board may fix such damages by compromise, and may also so fix terms and conditions on

which abutting estates may construct and maintain entrances to said subway.

Sect. 4. Said board may employ one or more competent engineers and architects. Said subway shall be made architecturally and otherwise as attractive as may be, within a reasonable limit of cost.

Sect. 5. Said city, for the purposes of this act, may incur indebtedness, and shall from time to time, on request of said board, as occasion shall be, issue negotiable bonds to an amount not exceeding three million five hundred thousand dollars, for the construction of said subway, and shall, unless said city shall otherwise provide for taking the lands and easements and other estates in lands for the purposes of this act, issue negotiable bonds to an amount not exceeding one million five hundred thousand dollars for taking the lands, easements, and other estates in lands for the purposes of this act. All of said bonded indebtedness may be outside of the limit of indebtedness fixed by law for said city. Such bonds shall be payable in not exceeding fifty years from their date, and shall bear interest, at such rate not exceeding four per cent. per annum, as the city council may determine.

Sect. 6. On the completion of said subway, said board may compel any street railway corporation maintaining lines in said city within one thousand feet distant from any entrance to said subway, to run cars in, to, and from said subway; and within said subway, and within one thousand feet distance from entrances thereof, may fix the routes for such cars. Said board may order any or all surface tracks to be

removed from the streets above said subway, and may order to be removed from the streets any surface tracks which in the judgment of said board may be rendered unnecessary by the fixing of routes for cars within one thousand feet distant from entrances as aforesaid. Said board may fix by contract, terms, and conditions, other than a rate of compensation, of the use of said subway by any such street railways for a term of years not exceeding twenty years, and may, by its order, fix the rate of compensation to be paid for a term of years or otherwise, not exceeding twenty years, for such use of said subway, subject to the approval of the Board of Railroad Commissioners; but such contracts shall be made subject to be terminated at any time when the Legislature shall authorize the trains of an elevated railroad to be run in or through said subway, and it shall actually be desired to run said trains therein. Surface tracks shall not be laid or maintained in any street from which said board may have so ordered such tracks removed, except with the consent of the Board of Railroad Commissioners.

Sect. 7. Said board may fix terms and conditions of use of said subway for pipes, conduits, wires, drains, or other subterranean structures.

Sect. 8. Said board shall make provision for pipes and sewers and other structures of said city, and put the surface of streets over said subway in as good condition as before.

Sect. 9. Said board shall have full power and authority to sell, or to lease for improvement or otherwise, any portion of the lands or rights acquired under

the provisions of this act, which may not be wholly required for the purposes of said subway.

Sect. 10. Rentals and other receipts under this act shall be kept as a separate fund, which shall be devoted, first, to the maintenance and repair of said subway; second, to payment of interest on obligations issued under this act ; and third, to the purposes of a sinking fund for payment of said obligations.

Sect. 11. Said board shall have the care, oversight, and control of said subway, and of the running of cars through the same, for six months after the completion thereof.

Sect. 12. The supreme judicial court shall have jurisdiction in equity to enforce the provisions of this act.

Sect. 13. All acts and parts of acts inconsistent herewith are hereby repealed.

Sect. 14. This act shall take effect upon its passage.